

COMPLETE SET OF PENDING CLAIMS

1. (Cancelled)

2. (Currently Amended) An image display apparatus, in which a ~~current one~~ TV field period is divided into a plurality of sub-fields that are each respectively given a different luminance weights weight and are arranged in ascending or descending order of time luminance weight, and a gray scale image for the current TV field period is displayed by selecting a combination of sub-fields for each pixel and sustaining a light emission state in each pixel during the selected sub-fields, when S denotes a sum of luminance weights of the plurality of sub-fields and R is within a range from 0 to S, a gray level corresponding to R is expressed by selecting sub-fields whose luminance weights, when added together, are closest to R, characterized in that

when the plurality of sub-fields are arranged in ascending order of luminance weight with a luminance weight of an "i"th smallest luminance weight sub-field being denoted by W_i , the plurality of sub-fields are respectively given such luminance weights that "n" exists such that where $W_1+W_1+W_2+\dots+W_n < W_{n+1}$, $W_1+W_1+W_2+\dots+W_i \dots + W_n \leq W_{n+1}$.

3. (Cancelled)

4. (Currently Amended) An image display apparatus, in which a ~~current one~~ TV field period is divided into a plurality of sub-fields that are respectively each given a luminance weights weight and are arranged in order of time, and a gray-scale image for the current TV field period is displayed by choosing one of a plurality of coding patterns which are each made up of selecting a combination of sub-fields having predetermined luminance weights in accordance with a maximum gray level of an input image signal and illuminating each pixel during desired sub-fields using the chosen coding pattern, where maximum display luminance is controlled

according to a characteristic of the input image signal, for each pixel and sustaining a light emission state in each pixel during the selected sub-fields, wherein a coding pattern that specifies a sum of luminance weights of all sub-fields in the current TV field period is determined in accordance with a characteristic of input pixel image signals corresponding to the image of the current TV field period, characterized in that

when a ratio of a sum of luminance weights of all sub-fields in a first coding pattern to a sum of luminance weights of all sub-fields in a second coding pattern is denoted by K , where the first and second coding patterns are included in the plurality of coding patterns and the sub-fields in the first coding pattern are in a one-to-one correspondence with the sub-fields in the second coding pattern in order of luminance weight, the sub-fields in the first coding pattern include: reference TV field period is divided into a plurality of sub-fields that are respectively given luminance weights, and a ratio of the sum of luminance weights of all sub-fields in the current TV field period to a sum of luminance weights of all sub-fields in the reference TV field period is denoted by K , the current TV field period includes

(a) a sub-field having a luminance weight whose ratio to a luminance weight of a corresponding sub-field in the second coding pattern is less than or equal to a value K one or more sub-fields whose luminance weights are obtained by multiplying luminance weights of predetermined sub-fields in the reference TV field period, respectively by coefficients no greater than K , and

(b) a sub-field having a luminance weight whose ratio to a luminance weight of a corresponding sub-fields in the second coding pattern is greater than the value K one or more sub-fields whose luminance weights are obtained by multiplying luminance weights of

~~predetermined subfields in the reference TV field period, respectively by coefficients greater than K.~~

5.-45. (Cancelled)

46. (New) The image display apparatus of Claim 4,

wherein in each of at least two coding patterns among the plurality of coding patterns, at least two sets of three luminance weights selected in ascending order of luminance weight each meet the condition that the three luminance weights have a proportion selected from a plurality of proportions that are "1:2:3", "1:2:4", "1:2:5", "1:2:6", "1:3:7", "1:4:9", "2:6:12", and "2:6:16".

47. (New) The image display apparatus of Claim 4,

wherein ratios in luminance weight of the sub-fields in the first coding pattern to the corresponding sub-fields in the second coding pattern monotonously increase in ascending order of luminance weight.

48. (New) The image display apparatus of Claim 47,

wherein the ratios increase in arithmetic progression in ascending order of luminance weight.

49. (New) The image display apparatus of Claim 47,

wherein the ratios increase in geometric progression in ascending order of luminance weight.

50. (New) The image display apparatus of Claim 47,

wherein the sub-field with the ratio no greater than K includes a sub-field having a fixed smallest luminance weight.

51. (New) The image display apparatus of Claim 50,

wherein in each of at least two coding patterns among the plurality of coding patterns, at least two sets of three luminance weights selected in ascending order of luminance weight each meet the condition that the three luminance weights have a proportion selected from a plurality of proportions that are "1:2:3", "1:2:4", "1:2:5", "1:2:6", "1:3:7", "1:4:9", "2:6:12", and "2:6:16".

52. (New) The image display apparatus of Claim 51,

wherein when S denotes a sum of luminance weights of the plurality of sub-fields and R is within a range from 0 to S, a gray level corresponding to R is expressed by selecting sub-fields whose luminance weights, when added together, are closest to R.

53. (New) The image display apparatus of Claim 52,

wherein the selection of the sub-fields is controlled in accordance with one out of: an amount of movement from an image of a past TV field period to the image of the TV field period; and an approximate value of the amount of movement.

54. (New) The image display apparatus of Claim 53,

wherein in an image area where the amount of movement or the approximate value of the amount of movement is larger than a predetermined level, such combinations of sub-fields are chosen that monotonously increase in time with increasing gray levels of the input image signal.

55. (New) A method for representing display field information comprising:

dividing one TV field period into a plurality of sub-fields that are each given a luminance weight and are arranged in order of time;

displaying a gray-scale image for the TV field period by choosing one of a plurality of coding patterns which are each made up of a combination of sub-fields having predetermined luminance weights in accordance with a maximum gray level of an input image signal;

illuminating each pixel during desired sub-fields using the chosen coding pattern, where maximum display luminance is controlled according to a characteristic of the input image signal, characterized in that

when a ratio of a sum of luminance weights of all sub-fields in a first coding pattern to a sum of luminance weights of all sub-fields in a second coding pattern is denoted by K, where the first and second coding patterns are included in the plurality of coding patterns and the sub-fields in the first coding pattern are in a one-to-one correspondence with the sub-fields in the second coding pattern in order of luminance weight, the sub-fields in the first coding pattern include:

- (a) a sub-field having a luminance weight whose ratio to a luminance weight of a corresponding sub-field in the second coding pattern is less than or equal to a value K, and
- (b) a sub-field having a luminance weight whose ratio to a luminance weight of a corresponding sub-fields in the second coding pattern is greater than the value K.